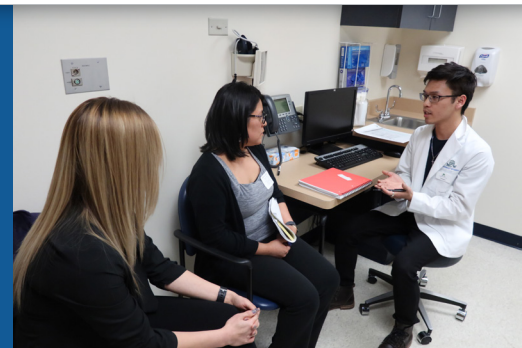




MCW
PHARMACY SCHOOL



LEARN. INNOVATE. ENGAGE. ADVOCATE.
ELECTIVE COURSES



MCW School of Pharmacy

Elective Courses

Course	Credits	Title & Director(s)	Description
670	1.5	Residency Exploration & Preparation <i>Dr. Bakken</i>	In this course students will learn how to identify post-graduate and/or employment opportunities, including PGY1/PGY2 Residency Programs, Fellowships and Post-Graduate Degree Programs. Students will learn to market themselves professionally, practice professional etiquette and create necessary residency materials, such as a CV and Letter of Intent. Through the course of this elective class, students will develop, practice, and refine skills needed to be successful during the residency search and interview process.
671	3	Mental Health Issues & Therapies <i>Dr. Bozymski</i>	Students will learn about non-pharmacologic and pharmacologic treatment of individuals living with mental illness. They will also explore the impact of stigma on these individuals' lives through the exploration of trauma-informed care, literature/film portrayals, and historical/firsthand accounts. This course will build upon pharmacotherapy knowledge taught in PHAR 663 (Integrated Sequence: Neurology and Behavioral Health) and skills taught in PHAR 631 (Patient Care Laboratory VI) so that students will be able to assist individuals living with mental illness at a more comprehensive level.
672	1.5	Clinical Pharmacogenomics <i>Dr. Assem</i>	This course will give students a broad perspective on the emergence of pharmacogenomics as a new field and provide them with insight into the growing importance it will play in clinical therapeutics and future drug design. The course will be presented in three parts. The first part of the course will examine some of the common methodologies used in the application of pharmacogenomics along with the role pharmacogenomics can play in altering drug pharmacokinetics and pharmacodynamics. The second part of the course will focus on the role of pharmacogenomics in the pharmacotherapy of various diseases of the cardiovascular, CNS, hematologic, respiratory, and immune systems as well as cancer. Part three of the course will address other pertinent issues related to pharmacogenomics such as clinical testing, bioethics, drug development and toxicogenomics.

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673	1.5	Introduction to Family Medicine <i>Dr. Pape</i>	This course incorporates prevalent inpatient and outpatient family medicine topics, including anticoagulation, hyperlipidemia, hypertension, diabetes, polypharmacy, comprehensive medication management, transitions of care and motivational interviewing. This course is also designed to emulate the unique continuity-of-care experiences specific to family medicine practice. The content will be delivered using both didactic and active learning strategies, with a large emphasis being placed on active student engagement. Course activities and group/individual assignments are designed to mimic scenarios students will encounter on a family medicine APPE rotation and include patient case workup, formal case presentations, written drug information responses and continuity of care for simulated patient families. Course activities are designed to foster student growth in critical thinking, writing, literature evaluation and public speaking skills.
674	3	Cellular & Molecular Neuroscience <i>Dr. Gerges</i>	This course covers essential framework and fundamental aspects of neuroscience. Emphasis is placed on the molecular and cellular mechanisms underlying various processes of the brain. Core topics include: cellular and molecular mechanisms of neural development, neuronal network, coupling of energy metabolism and neuronal activity, cellular and molecular mechanisms of memory and somatosensation, endocannabinoid signaling and the molecular architecture of the synapse.
675	3	Advanced Patient Cases <i>Dr. Revolinski</i>	This course serves to facilitate application of didactic learning and drug information techniques to clinical situations that may be encountered in practice. Students will review a patient case and determine a care plan that is supported with evidence from the literature. Students will assess therapeutic alternatives and debate various clinical options available to patients. Students will learn how to discuss a patient case with various health care practitioners and will apply critical thinking to a patient case.
676	3	Advanced Drug Delivery Systems: Bench to Bedside <i>Dr. Chauhan</i>	Students will continue to build on topics learned in Pharmaceutical Drug Delivery I and II with a larger focus on advanced drug delivery systems. Students will learn in-depth about the next-generation delivery systems through lecture, lab rotations and pharmaceutical practice prospective.

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677	1	Mental Health First Aid <i>Dr. Bozymski</i>	Mental Health First Aid (MHFA) USA, published by the National Council for Behavioral Health (NCBH), is a training program designed to teach participants how to recognize, assess, and respond to signs of mental illness, including substance use disorders; participants are not required to have a professional background in mental health care. Students in this course will learn about the prevalence and stigma of mental illness, how to support individuals developing a mental illness or substance use problem, and how to aid individuals experiencing a mental health crisis. Students who successfully complete the training program and pass a written exam will receive a 3-year MHFA certification through NCBH at the end of this course.
678	1.5	Informatics <i>Dr. Winn</i>	Introduction to informatics, electronic health care records, clinical decision support, automation, wearable devices, and sources of data for clinical and business applications. Students will learn the basics of informatics and how to effectively manipulate large data sets using Excel functions such as pivot tables, conditional equations and data visualization tools.
679	1.5	Medical Spanish for Pharmacists <i>Dr. Lor</i>	Students will develop basic and intermediate professional Spanish communication skills for pharmacists. Students will learn key vocabulary necessary to provide patient education and obtain a medication history in Spanish. Students will gain a cultural awareness to provide culturally-appropriate care to Spanish-speaking patients. This course will be taught primarily in Spanish and supplemented with English. Students will be required to speak, listen and write in Spanish.
680	3	Clinical Toxicology <i>Dr. El-Alfy</i>	This course is designed to apply basic pharmacological and toxicological principles to the management of poisoned patients. Several of the drugs commonly encountered in accidental or intentional poisoning are to be covered. The student should be able to recognize signs and symptoms of poisoning, characterize the type and extent of intoxication, and develop a specific management plan. The course is taught in collaboration with the Wisconsin Poison Center. All topics will be covered in a patient-centered, case-based format.

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681	1.5	Community-Engaged Research <i>TBD</i>	This course will introduce students to basic concepts of community-engaged research, including framing a research question, hypothesis, methodology, data collection and analysis, and results and conclusions in the cultural context of the community. Students will be expected to write and develop a mini-proposal that encompasses these principles. Students will also gain experience in writing an abstract and developing a poster that describes the project that addresses a community-identified health problem. Through lectures, readings, group discussions, and participation in community engagement activities, students will acquire the basic skills necessary to develop, implement, and evaluate a community-engaged research proposal.
682	3	Advanced Infectious Diseases <i>Dr. Bunnell</i>	This course expands upon the infectious diseases pharmacotherapy content in the Integrated Sequence, introducing students to more specialized topics such as multi-drug resistant organisms, infections in immunocompromised hosts, HIV/AIDS, and fungal, viral, and parasitic infections encountered in hospital and global settings. The role of the pharmacist as a provider of infectious diseases services will be emphasized in various settings.
683	3	Substances of Abuse & Addiction <i>Drs. Abourashed & Mosier</i>	This course provides in-depth knowledge of the neuropharmacology of substances of abuse including CNS stimulants, depressants, hallucinogens, inhalants, and steroids. Basic pharmacokinetic and pharmacodynamic mechanisms related to the effects of the individual substances of abuse will be emphasized. Current theories of addiction and tolerance will be presented in addition to various treatments for dependence and detection methods, as well as social, legal, and ethical aspects of substance abuse.
684	3	Pharmacoeconomics <i>Dr. Winn</i>	Students will be introduced to the methods and will apply techniques of economic evaluation to health care technologies. This class will provide students with the tools to help guide resource allocation decisions to the most efficient health technologies. This class will cover basic methods used to create mathematical models of disease progression, structure economic evaluations, measure and summarize outcomes, create predictions for patient and population outcomes including health outcomes, costs and cost-effectiveness. This class will focus on the techniques for economic evaluation of health care and reporting results in a transparent manner. This class is a hands on class that teaches students how to conduct pharmacoeconomic analyses using Excel.

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685	1.5	Transplant Pharmacy: Transitions of Care <i>Dr. Graff</i>	Transplant pharmacy is a unique and incredible opportunity for pharmacists. This course is designed for students with a strong interest or curiosity in this subset of pharmacy practice. The topics for this course will be divided into four sections: adult hematopoietic stem cell transplantation (HSCT), pediatric HSCT, adult solid organ transplantation (SOT), and pediatric SOT. Class time will be spent between mini-lectures and actively participating in case-based patient scenarios to guide students through the complex critical thinking skills required to care for these patients.
686	1.5	Pediatrics <i>Drs. Cramer & Graff</i>	This course will introduce students to the unique field of pediatric pharmacy. Students will gain an understanding of common pediatric disease states and the associated pharmaceutical treatments. The course will also focus on how developmental age affects the pharmacokinetics and pharmacodynamics of various medications. Neonatology will be a large focus of the class to reflect the growing number of hospitals that have a NICU ward. Each class period will be a combination of lecture and case-based discussion.
687	2	Effective Leadership for Pharmacy Practice <i>Dr. DeBisschop</i>	In this course, students will explore contemporary leadership philosophies, theories, and skills. Students will learn ways to communicate, lead change, work with teams, and resolve conflicts. Emphasis in this course is on developing a mindset of positive communication with others that results in change leadership and effective team work. The learner will participate in activities designed to improve their working knowledge and experience with leadership concepts, including reflections, leadership assessments, discussion, and presentation.
688	1	Advanced Diabetes Care <i>Dr. Kavanaugh</i>	Through application of diabetes knowledge and skills with hands-on techniques, case-based discussions, and evidence-based practice, this elective course is designed to provide students with exposure to advanced diabetes care and management topics. While the emphasis is on ambulatory or community practice settings, these skills can be applied to practice site where diabetes is managed. Students will receive the American Pharmacist Association (APhA) Pharmacist & Patient-Centered Diabetes Care Certificate at the end of this course.

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689	1	When Disaster Strikes: Pharmacists as First Responders <i>Dr. Kavanaugh</i>	Pharmacists play an active and important role when disasters strike and emergencies occur. This course will focus on the role of a pharmacist during times of crisis, from triaging patient care to managing medication use and distribution. The course will culminate with a multidisciplinary disaster simulation where students will play various roles in response to a staged disaster scenario.
690	1.5	Military Academic Enrichment <i>Dr. Nagy</i>	As a part of the United States' Joining Forces initiative, MCW is committed to training learners to meet the health care needs of the military community. This course will specifically address Traumatic Brain Injury, Post-Traumatic Stress Disorder, military ethos, stressors of deployment, social stigmata, and blast injuries through 6 core sessions. In addition, it will assess the knowledge, skills, and attitudes required to bridge the gap between providers of care, military patients, and health systems. This course will serve a national need and better prepare students for residency in civilian or government arenas.
691	1	Commercial Tobacco & Nicotine Intervention Skills <i>Dr. Letizia</i>	Recognizing that pharmacy and medical health care providers are uniquely positioned to address commercial tobacco/nicotine use and dependence within the communities that they serve, this elective course provides pharmacy and medical students with exposure to the individual and societal impact of commercial tobacco/nicotine use and dependence in order to better understand and ultimately be able to perform brief interventions and manage patients who seek to be commercial tobacco/nicotine-free. Students are introduced to evidenced-based approaches that can be used to promote abstinence from commercial tobacco/nicotine containing substances. Through the use of independent and didactic learning activities, as well as hands-on experiences in a mock ambulatory care setting, students gain the skills of working with patients to ask about commercial tobacco/nicotine use, advise in quitting, conduct a brief assessment, assist in committing to behavior change, and arrange a follow-up appointment as part of a comprehensive treatment plan.

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692	1.5	Population Health Management & Data Analytics <i>Dr. Nagy</i>	<p>Population health management is a patient-centered, integrated care delivery model based on aligned incentives and coordinated, collaborative processes that are built on evidence-based prevention and disease management protocols. The goal of population health management is to target specific healthcare interventions to patients who need it most, which is often completed by targeting evidence-based metrics. This course introduces the concept of population health management using data analytics. Students who can leverage data analytics will be ready to manage patient care and effectively allocate precious time resources within their future pharmacy practice. Students will practice analyzing simulated population health data for management of disease states including but not limited to diabetes, hypertension, chronic pain, immunizations, and polypharmacy. Students will work in groups to apply population health and disease state information by creating an actionable intervention. The proposed intervention will be tested through pilot implementation at a clinic site by each student group. At the end of this elective course, students will prepare a poster presentation of their population health management project that will be of high quality appropriate for submission for a conference.</p>
693	2	Innovative Leadership <i>TBD</i>	<p>This course is designed for students to build management and leadership capabilities. The class explores personal and organizational aspects of leadership and management examining theoretical perspectives and models for innovative leadership and pathway for innovation. In addition, the course examines key tools for effective management and leadership to manage risk, challenges, building consensus and collaboration. The course also guides students through a personal leadership development journey. The classroom will serve as an interactive learning environment. Students will learn management and leadership abilities from readings, lecture, group discussion, reflection, assessment, planning and application. The content of the course builds from research across business cases and readings to inform a solid perspective to enhance management, leadership, and innovation capabilities. This course includes activities and feedback for students to facilitate growth and development, and is appropriate for students who want to become effective managers, leaders, and innovators cultivating the growing related abilities and knowledge.</p>

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694	2	Disruptive Innovation <i>TBD</i>	This course teaches students how to develop, design and create ideas. Students explore the entrepreneurial mindset, creativity and idea generation, and assessing entrepreneurial opportunities. This course focuses on creative and innovative solutions to both business problems and business opportunities.
699	0.5 - 3.0	Independent Study <i>Any Pharmacy Faculty Member</i>	Independent study is an educational activity such as project-level research or concentrated inquiry undertaken by a student under the direction or supervision of a faculty member. A student can develop an independent study course activity with a faculty member using the Independent Study Request form. The faculty member and department chair must approve the independent study request before the student will be enrolled in the course.